ORDER NO. SD7703-1209-1

Service Manual

Linear Phase Speaker System

SB-5000A

(FE)

Supplement-1

PARTS MODIFICATION ON TWEETER PROTECTION

For additional information, please refer to the service manual for Model No. SB-5000A(FE) .

Notes: * This service manual includes only the changes of the **SB-5000A(FE)** service manual (ORDER NO.SD7703-1209).

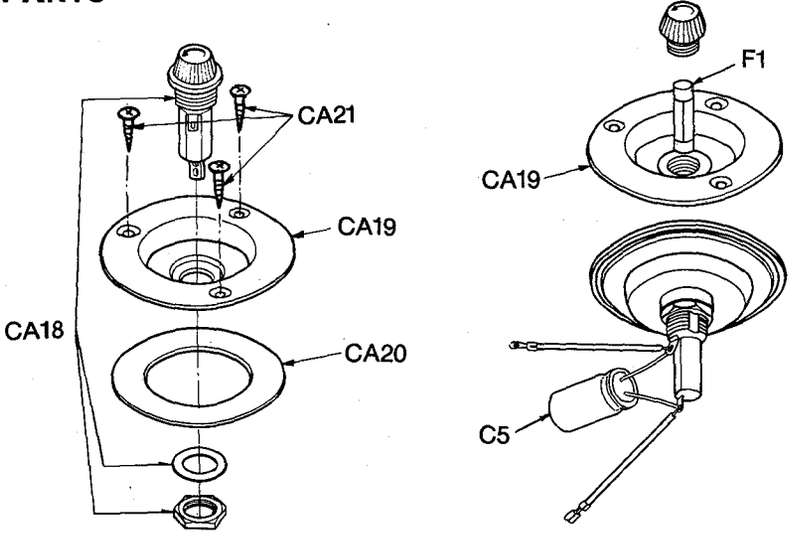
* When servicing model **SB-5000A(FE)** , this service manual and **SB-5000A(FE)** (ORDER NO. SD7703-1209) service manual should be used together.

CHANGES

■ REPLACEMENT PARTS LIST

Ref. No.	Change of Part No.		Part Name & Description	Per Set (Pcs.)	Remarks
	OLD	**NEW**			
F1	Addition	XBA1E06NS5	600mA, Fuse	1	
C3	ECEA50Y6R8	ECEA100Y4R7	4.7 μF, 100V, Electrolytic	1	
C5	Addition	ECEA50Y2R2	2.2 μF, 50V, Electrolytic	1	
CA1	SKA8891W	SKA8895W	Cabinet	1	
CA18	Addition	**QTF1046**	Fuse Holder	1	
CA19	Addition	SMK31	Fuse Panel	1	
CA20	Addition	SHR9359	Rubber	1	
CA21	Addition	XMS31+10FZ	Screw	3	
	Addition	SQX4561	Caution Label	1	

■ LOCATION OF PARTS



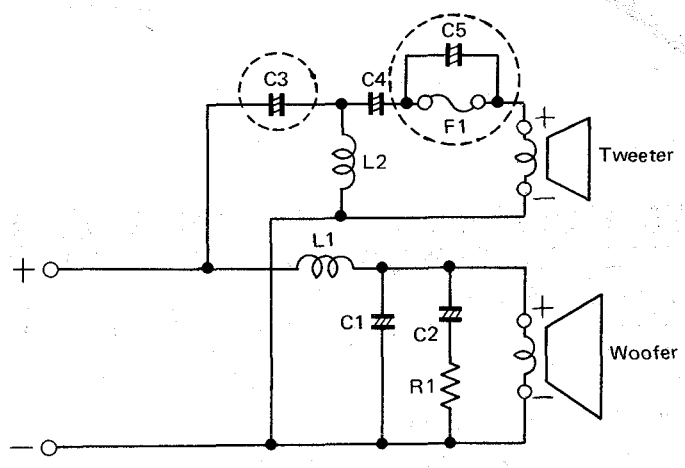
Technics
by Panasonic

Panasonic Tokyo
Matsushita Electric Industrial Co., Ltd.
17-15, 6-chome,Shinbashi, Minato-ku, Tokyo 105 Japan

Matsushita Electric Trading Co., Ltd.
P.O.Box 288, Central Osaka Japan

Printed in Japan
7707-650 Ⓚ

■ Design Modification



1. Dividing network constant
   C3: 6.8μF 50V (ECEA50Y6R8) ⟶ 4.7μF 100V (ECEA100Y4R7)
   C5: Added capacitor 2.2μF 50V (ECEA50Y2R2)
2. F1: Tweeter protective fuse added 600mA (XBA1E06NS5)

ORDER NO. SD7703-1209

Service Manual

Linear Phase Speaker System

SB-5000A (FE)

Note: The model SB-5000A (FE) is available in East PX and European Military.

■ SPECIFICATIONS (Specification are subject to change without notice for further improvement)

Type:	2-way, 2-speaker bass-reflex system
Speakers:	Woofer: 25cm (10") cone type
	Tweeter: 6cm (2-3/8") cone type
Impedance:	8 ohms
Instantaneous Maximum Input Power:	75 watte (peak)
Output Sound Pressure Level:	92.0 dB/w (at 1.0m)
Crossover Frequency:	1,500 Hz
Dimensions:	35.0 (W) x 71.7 (H) x 32.3 (D) cm
	13-3/4" (W) x 28-1/4" (H) x 12-11/16" (D)
Weight:	16.0 kg (35.2 lbs)
Accessory:	Speaker cord 5m ... 1
Frequency Range:	40 ~ 20 kHz [−10 dB]

Note: This frequency range was determined by measuring, in an anechoic chamber, the low-range frequency and the high-range frequency at a point 10 dB lower than the average sound-pressure level of the measured frequency response.

Technics by Panasonic

Panasonic Tokyo
Matsushita Electric Industrial Co., Ltd.
17-15, 6-chome, Shinbashi, Minato-ku, Tokyo 108 Japan

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ INSTANTANEOUS MAXIMUM INPUT POWER

The instantaneous maximum input of this speaker is 75 watts (peak). If excessive input is applied to the speaker system, the temperature of the voice coil will increase, and, if such a condition is continued, the voice coil will eventually burn out. Therefore, with the temperature increase of the voice coil fixed at a specified limit of 80°C., the instantaneous maximum input has been determined by measurements of the temperature increase of each voice coil with sinewaves, tone-burst waves, music etc.
The allowable input power differs depending upon the wave shape and the frequency of the input signal, and the changing aspect of these factors is shown in figure 1. As you can see from the graph in figure 1, a toneburst of four cycles ON and twenty-eight cycles OFF at about 75 watts (peak), there is no problem concerning the temperature increase of the voice coil.
Thus based on the given temperature increase of the voice coil, the instantaneous maximum input of the SB-5000A of 75 watts (peak) was determined.

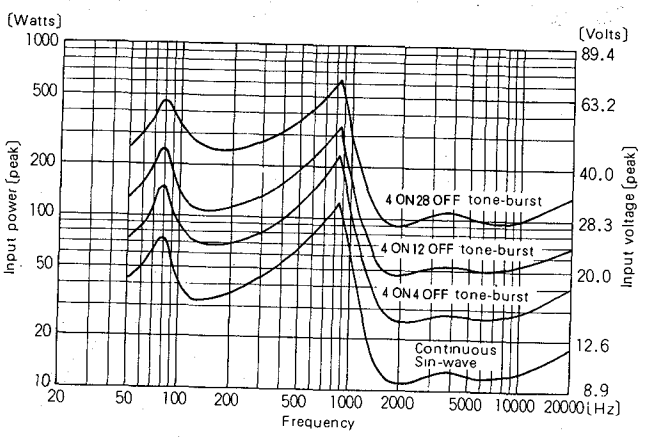


Figure 1: Allowable input signal according to input wave form (voice coil temperature increase is 80°C).

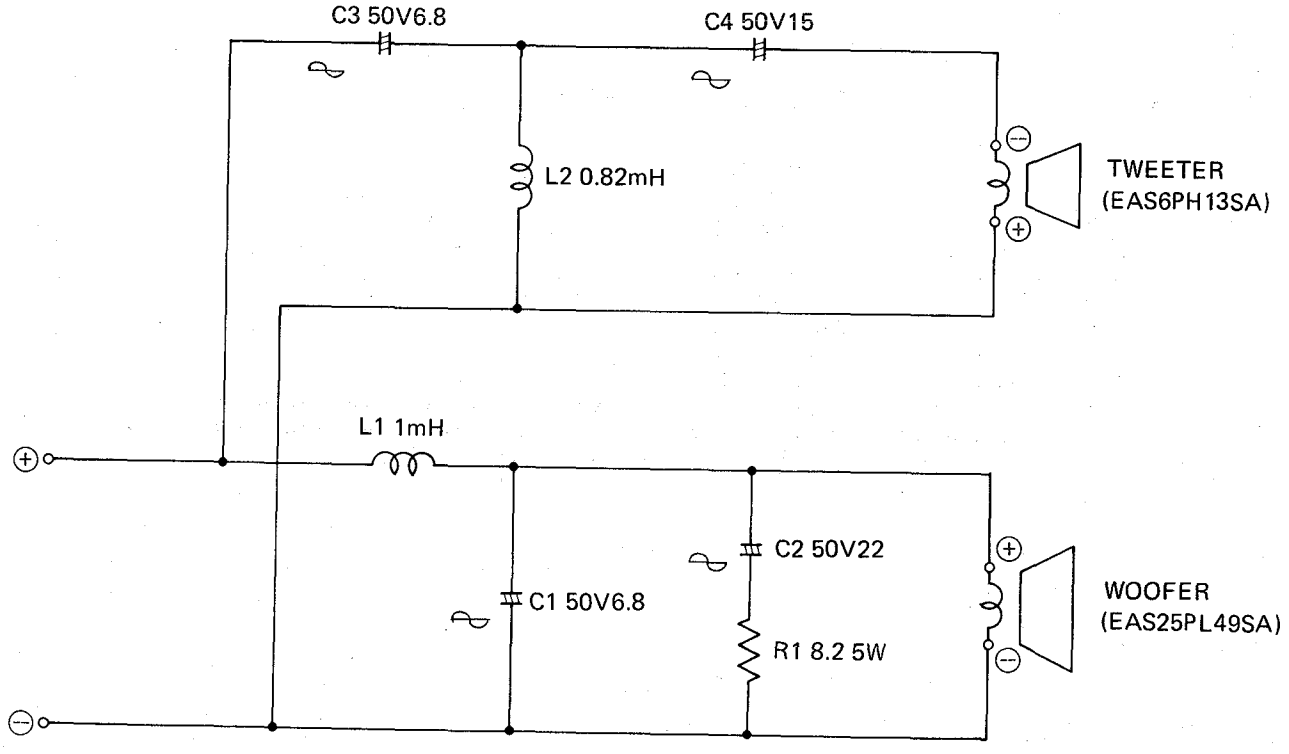
To protect your speaker from damage and to preserve it's delicate sound character, we suggest that you do not subject your speaker to any of the following conditions:

1. Interstation hiss on FM.
2. Output from a tapedeck during fast forward or rewind.
3. Acoustic feedback from either a microphone or turntable.
4. Hum when plugging in an external source to your amplifier.
5. Initial turn-on thump caused by poorly designed amplifiers.
6. Continuous tones from oscillators or demonstration records.

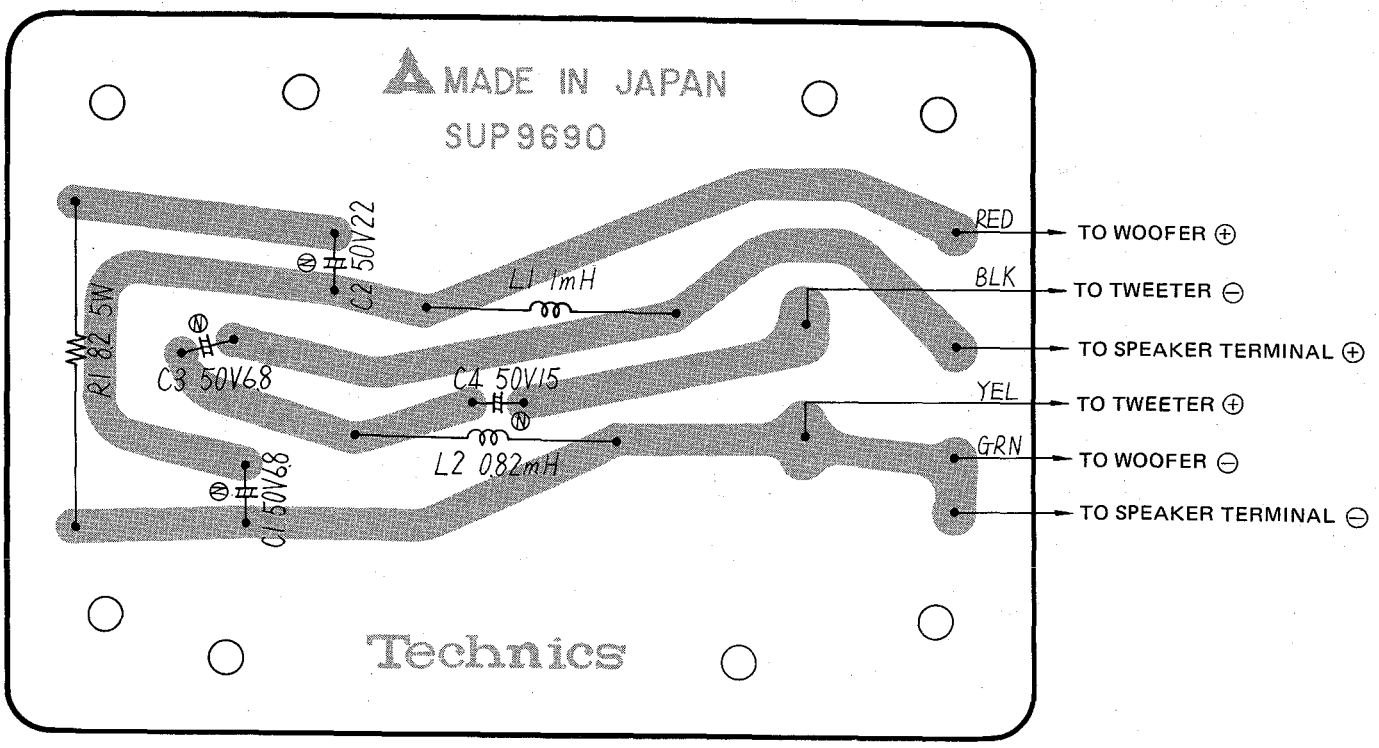
Any of the above conditions can put undue stress on the speaker system at high volume levels.

■ SCHEMATIC DIAGRAM

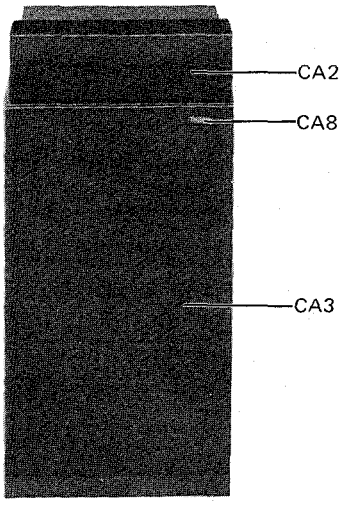
(This schematic diagram may be modified at any time with the development of new technology)

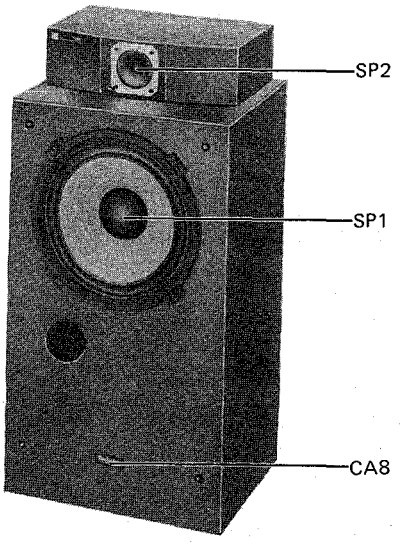


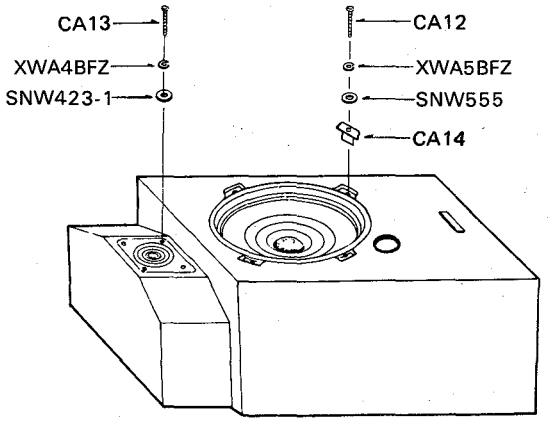
■ CIRCUIT BOARD

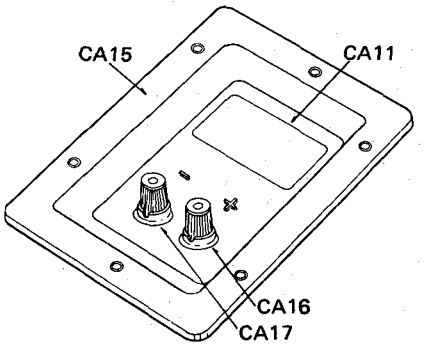


■ LOCATION OF PARTS

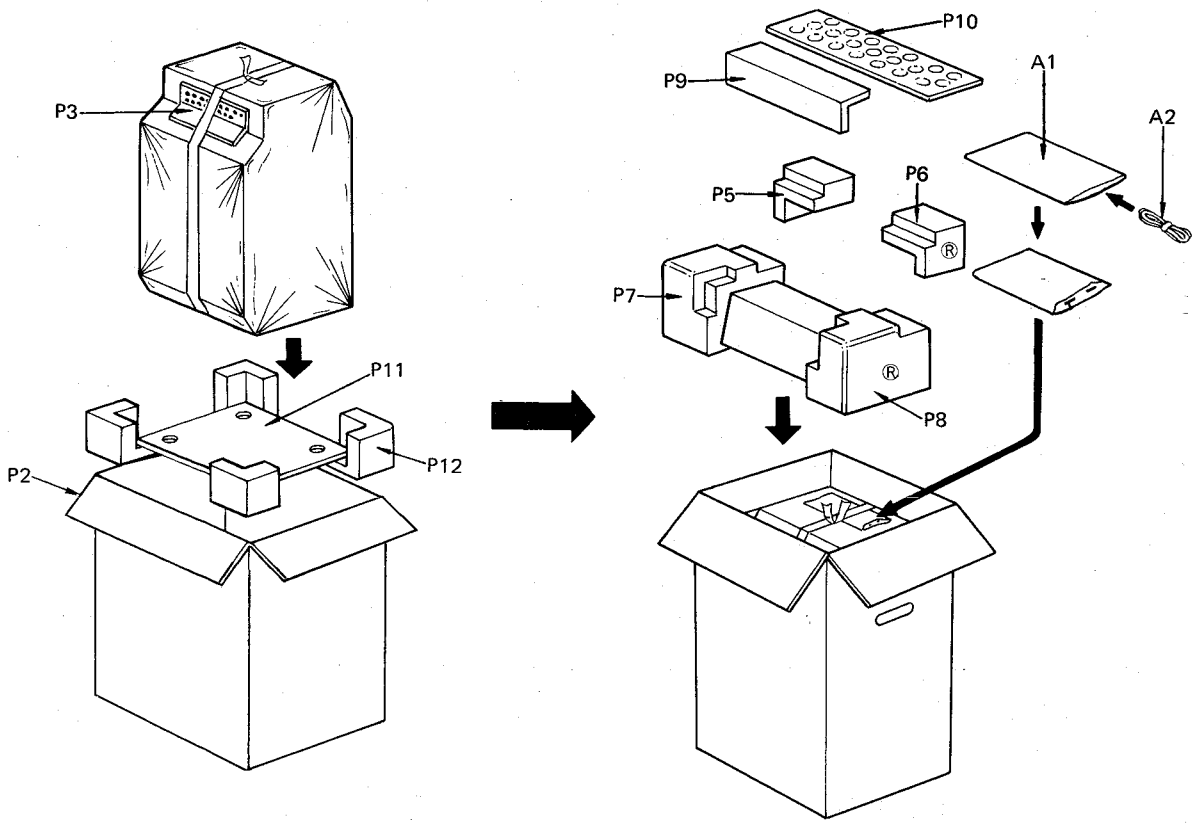








■ COMPONENT PACKING PROCEDURE



■ REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
SP1	EAS25PL49SA	Woofer, Speaker	1	○
SP2	EAS6PH13SA	Tweeter, Speaker	1	
L1	SLCC102K	1.0mH, Coil	1	
L2	SLCC821K	0.82mH, Coil	1	
C1, C3	ECEA50Y6R8	6.8μF, 50V, Electrolytic	2	
C2	ECEA50Y22	22μF, 50V, Electrolytic	1	
C4	ECEA50Y15	15μF, 50V, Electrolytic	1	
R1	ERF5AK8R2	8.2Ω, 5W, Wire Wound Resistor	1	
CA1	SKA8891W	Cabinet	1	
CA2	SYB495-2	Grill, Upper	1	○
CA3	SYB481-5	Grill, Lower	1	○
CA4	SHG1179-1	Rubber, Net Catch	2	
CA7	SHG1245-2	Net Catch	4	
CA8	SGB489	Badge	2	
CA12	XVES5B25FIS	Screw, Woofer	4	
CA13	XVES4B25FIS	Screw, Tweeter	4	
CA14	SMN1371	Mounting Bracket, Woofer	4	
CA15	SWT253-5	Terminal Plate	1	
CA16	SGE401-1	Knob (Orange)	1	
CA17	SGE401	Knob (Black)	1	
ACCESSORY PARTS				
A1	SQF1577	Instruction Book	1	
A2	SWX291	Cord, Speaker	1	
PACKING MATERIALS				
P2	SPG1013	Carton	1	○
P3	SPS239-1	Pad, Speaker	1	
P5	SPS169	Left Pad	1	
P6	SPS169-1	Right Pad	1	
P7	SPS167	Left Pad	1	
P8	SPS167-1	Right Pad	1	
P9	SPS175	Upper, Pad	1	
P10	SPS177-1	Top Pad	1	
P11	SPS181	Upper board	1	
P12	SPS173	Pad, Corner	4	

Printed in Japan
7703-600